Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A multi-channel acoustic measurement device which comprises:

a plurality of sample chambers,

a controller for controlling one or more conditions of said sample chambers,

a plurality of acoustic detectors, each said acoustic detector comprising a piezoelectric quartz crystal and being located in one said sample chamber;

a driving device connected to said plurality of acoustic detectors for causing a perturbation of said acoustic detectors,

a multiplexer connected between said driving device and said acoustic detectors to multiplex the driving device simultaneously to a plurality of acoustic detectors, and

a data device for obtaining data from said plurality of acoustic detectors.

2. (Previously presented) A multi-channel acoustic measurement device as claimed in claim 1, wherein the controller controls at least the temperature of said sample chambers and said acoustic measurement device further comprises at least one temperature sensor in direct contact with a surface of each said acoustic detector.

3. (Currently amended) A multi-channel acoustic measurement device as claimed in claim 2, wherein ~~the~~ each said sample chamber is formed from a combination of a block including at least one sample well and a cover, and wherein said device comprises separately controlled temperature control devices for altering a temperature of said block and said cover.

4. (Original) A multi-channel acoustic measurement device as claimed in claim 3, wherein said controller is programmable.

5. (Previously presented) A multi-channel acoustic measurement device as claimed in claim 1, wherein said multiplexer also connected to the controller and said data device and the data

device is selected from the group consisting of a data storage device, a data processing device and a combination of a data processing and storage device.

6. (Previously presented) A multi-channel acoustic measurement device as claimed in claim 5, wherein said driving device is selected from the group consisting of an oscillator, a digital data sensitizer and a Fourier transform frequency generator.

7. (Original) A multi-channel acoustic measurement device as claimed in claim 6, wherein said multiplexer is programmable.

8. (Original) A multi-channel acoustic measurement device as claimed in claim 7, further comprising a data validator.

9. (Previously presented) A multi-channel acoustic measurement device as claimed in claim 5, wherein said driving device is a Fourier transform frequency generator.

10. (Currently amended) A method for obtaining data from a plurality of samples comprising the steps of:

providing a plurality of sample chambers containing samples,

providing a plurality of acoustic detectors, each said acoustic detector comprising a piezoelectric quartz crystal and being located in one said sample chamber;

simultaneously driving ~~each~~ a plurality of said piezoelectric quartz crystals to a resonant frequency by oscillating each said piezoelectric ~~crysal~~ crystal using a multiplexed output from an oscillator circuit, and

measuring at least one property of a plurality of said acoustic detectors.

11. (Original) A method as claimed in claim 10, wherein said sample chambers are configured as 96 well plate geometry, and in said providing step, 96 sample chambers are provided.

12. (Original) A method as claimed in claim 10, wherein said driving step is carried out according to a pre-programmed control program.

13. (Currently amended) A method as claimed in claim 12, further comprising the step of controlling the temperature of said sample chambers based on information obtained from at least one temperature sensor in direct contact with a surface of each said acoustic detector.

14. (Original) A method as claimed in claim 13, wherein said temperature control step is carried out according to a pre-programmed control program.

15. (Currently amended) A method as claimed in claim 14, further comprising the step of processing at least one measurement obtained in said measuring steps.

16. (Original) A method as claimed in claim 15, wherein said method provides a measurement selected from the group consisting of a resonant frequency measurement, a amplitude measurement, a phase feedback measurement, a direct decay measurement and a phase frequency spectrum measurement.

17. (Currently amended) A method as claimed in claim 16, wherein said method provides information about one or more properties of ~~the~~ each said acoustic detector selected from the group consisting of resonant frequency change, the rise of the resonant frequency change, onset resonant frequency change, dissipation, the dissipation change, complex impedance, phase change, change in signal amplitude, Q-factor and any combination thereof.

18. (Original) A method as claimed in claim 17, wherein said method provides information about the sample selected from the group consisting of mass, visco-elasticity, glass transition temperature, binding factor, biosensor specific concentration, particle size, kinetic cascade patterns, presence of a specific material in the sample and combinations thereof.

19. (Original) A method as claimed in claim 18, wherein said processing step comprises processing one or more measurements to adjust for temperature dependence of said one or more measurements.

20. (Canceled)

21. (Previously presented) A method as claimed in claim 10, wherein said temperature control step comprises adjusting a temperature of a portion of a block forming each sample well and a temperature of a corresponding cover for each said sample well.